

Australian Standard™

Refractory bricks and shapes

Part 4: Silica

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PREFACE

This Standard was prepared by Standards Australia Committee MN-007, Refractories and Refractory Materials to supersede AS 1617.4—1993.

The classification for silica bricks is in agreement with that of ISO 1109:1975, *Refractory products—Classification of dense shaped refractory products*, and the scheme for the tabulated data was derived from a proposed revision of SABS 35—1949, *Standard specification for shaped refractory bricks*, by the South African Bureau of Standards.

This Standard is aligned with, and a companion Standard to, AS 1617.3, *Refractory bricks and shapes, Part 3: High alumina*, and AS 1617.5, *Refractory bricks and shapes, Part 5: Magnesite, chrome*.

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STANDARDS AUSTRALIA

Australian Standard
Refractory bricks and shapes

Part 4: Silica

1 SCOPE

This Standard specifies requirements for refractory bricks and shapes having a maximum free quartz content of 5 percent by mass and produced essentially from silcrete, quartzite and ganister.

This Standard applies to machine-made silica refractory bricks and shapes used principally in the glass and steel industries.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1618	Dimensions and preferred sizes for refractory bricks
1774	Refractories and refractory materials—Physical test methods
1774.1	Method 1: Determination of cold compressive strength
1774.5	Method 5: The determination of density, porosity and water absorption
1774.6	Method 6: Determination of true density
1774.12	Method 12: Refractoriness under load—Temperatures of deformation at constant load with rising temperature
1774.25	Method 25: Determination of density by the Rees-Hugill method
1774.27	Method 27: Modulus of rupture at elevated temperatures
2497	Procedures for acceptance testing of refractory products
2497.1	Part 1: Batch procedure
2503	Chemical analysis of refractories and refractory materials
2503.1	Part 1: Silica refractory materials
2780	Refractories and refractory materials—Glossary of terms

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2780 and that below apply.

3.1 Silica refractory

A material that in the fired state contains not less than 93 percent of silica by mass.

4 DIMENSIONS

Bricks may be of any size and shape. The preferred dimensions of regular shapes are those specified in AS 1618.